

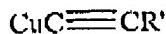
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REMARKS

Claim Rejections Under 35 U.S.C. § 102(b)

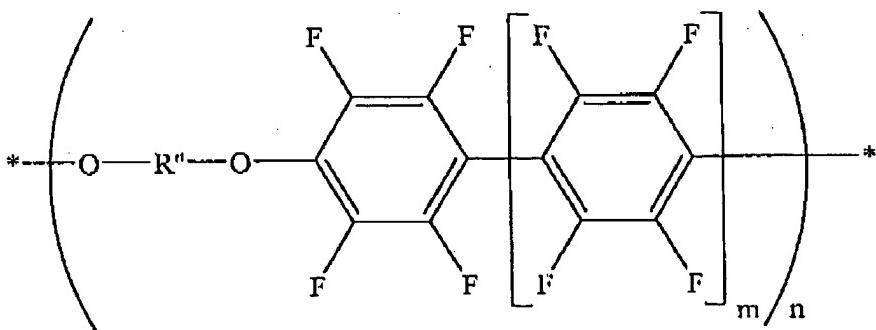
Claims 1-43 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent Nos. 5,959,157, 5,986,045, 6,124,421, all to Lau et al., and European Patent No. 755,957 B1 Burgoynes et al. Applicants respectfully traverse this rejection.

U.S. Patent No. 5,959,157 to Lau et al. (hereinafter "Lau '157") generally describes a process for making ethynylated, hydroxy-substituted biphenyl compounds comprising: a) halogenating 3,3'-dimethoxybiphenyl to form 2,2'-dihalo-5,5'-dimethoxybiphenyl; b) reacting the resulting 2,2'-dihalo-5,5'-dimethoxybiphenyl with a bromide-containing compound in a chlorinated solvent to form 2,2'-dihalo-5,5'-dihydroxybiphenyl; c) reacting the resulting 2,2'-dihalo-5,5'-dihydroxybiphenyl with a hydroxyl-containing compound in the presence of a protection catalyst to form 2,2'-dihalo-5,5'-bis(tetrahydropyranoxy)biphenyl; d) ethynylating the resulting 2,2'-dihalo-5,5'-bis(tetrahydropyranoxy)biphenyl with a compound of the formula



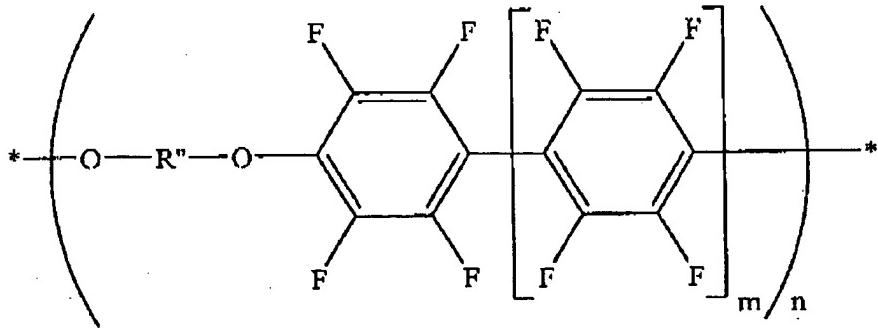
wherein R' is comprised of an alkyl group having from about 1 to about 20 carbon atoms, an alkenyl group having from about 1 to about 20 carbon atoms, an aryl group, a heteroaryl group, or mixtures thereof to form 2,2'-bis(C≡CR')-5,5'-bis(tetrahydropyranoxy)biphenyl; and e) hydrolyzing the resulting 2,2'-bis(C≡CR')-5,5'-bis(tetrahydropyranoxy)biphenyl to form 2,2'-bis(C=CR')-5,5'-bis(dihydroxy)biphenyl. Lau '157 abstract. Also described are poly(arylene ether)s and a process for their preparation, where the poly(arylene ether) has the formula

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wherein R" is an aromatic compound which imparts a glass transition temperature of greater than 260°C to the composition; m is an integer of from about 0 to about 50; and n is an integer of from about 1 to about 200. Lau '157, col. 2, ll. 10-64. There is no mention of particle size distributions, let alone determining a particle size distribution of the poly(arylene ether) at a particular point in the process. Nor is there any mention of adjusting a precipitation parameter in response to a measured particle size distribution.

U.S. Patent No. 5,986,045 to Lau et al. (hereinafter "Lau '045"), which claims priority to the same provisional application as Lau '157, generally describes a method for making hydroxy-substituted ethynylated biphenyl compounds and for reacting such compounds with a family of noncross-linking thermosetting poly(arylene ethers) to produce poly(arylene ether) compositions. Lau '045 abstract. The poly(arylene ether)s have the formula

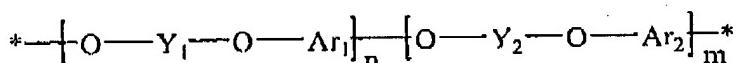


wherein R" is an aromatic compound which imparts a glass transition temperature of greater than 260°C to the composition; m is an integer of from about 0 to about 50; and n is an integer of from about 1 to about 200. Lau '045, col. 2, ll. 10-64. There is no

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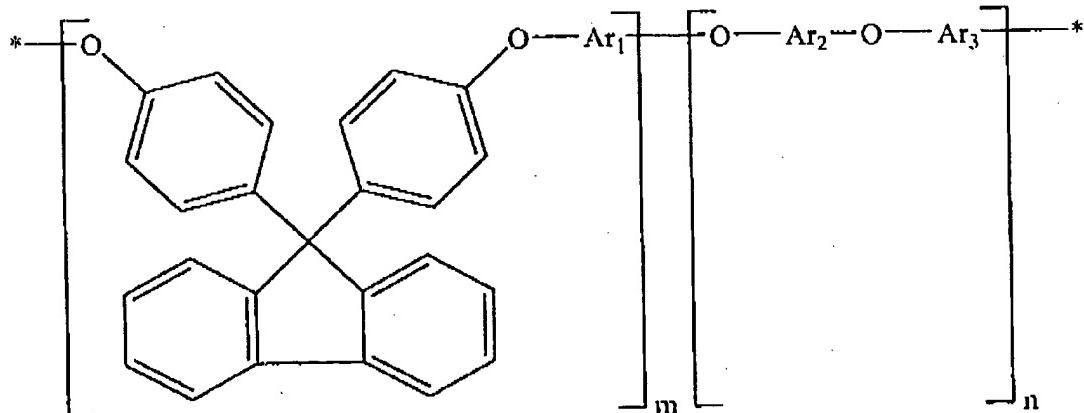
mention of particle size distributions, let alone determining a particle size distribution of the poly(arylene ether) at a particular point in a process for preparing the poly(arylene ether). Nor is there any mention of adjusting a precipitation parameter in response to a measured particle size distribution.

U.S. Patent No. 6,124,421 to Lau et al. (hereinafter "Lau '421") generally describes dielectric compositions encompassing one or more poly(arylene ether) polymers are provided. The dielectric compositions have the repetitive structural unit



where n=0 to 1; m=0 to 1-n; and Y₁, Y₂, Ar₁, and Ar₂ are each a divalent arylene radical, Y₁ and Y₂ derived from biphenol compounds, Ar₁ derived from difluoroarylethyne and Ar₂ derived from difluoroaryl compounds; where both Y₁ and Y₂ are derived from fluorene bisphenol, n=0.1 to 1. Lau '421 abstract. There is no mention of particle size distributions, let alone determining a particle size distribution of the poly(arylene ether) at a particular point in the process. Nor is there any mention of adjusting a precipitation parameter in response to a measured particle size distribution.

European Patent No. 755,957 B1 Burgoyne et al. (hereinafter "Burgoyne") generally describes poly(arylene ether) polymers have repeating units of the structure



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wherein m = 0.2 to 1.0; and n = 1.0 - m; and Ar₁, Ar₂ and Ar₃ are individually divalent arylene radicals. Burgoine, page 3, lines 35-49. There is no mention of particle size distributions, let alone determining a particle size distribution of the poly(arylene ether) at a particular point in a process for its preparation. Nor is there any mention of adjusting a precipitation parameter in response to a measured particle size distribution.

The cited references fail to anticipate Applicants' Claim 1 because the references fail to teach all of the elements of Claim 1. To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766, 1767 (Fed. Cir. 1987). Applicants' Claim 1 is reproduced below with added emphasis:

1. (original) A method of precipitating a poly(arylene ether), comprising:
 - preparing a poly(arylene ether) solution comprising a poly(arylene ether) and a solvent;
 - combining said poly(arylene ether) solution with an antisolvent to form a poly(arylene ether) dispersion comprising a poly(arylene ether) solid;
 - separating said poly(arylene ether) solid from said poly(arylene ether) dispersion to form an isolated poly(arylene ether) solid;
 - determining a particle size distribution of said poly(arylene ether) solid prior to said separating said poly(arylene ether) solid from said poly(arylene ether) dispersion; and
 - adjusting a precipitation parameter in response to said particle size distribution.

None of the cited references teaches determining a particle size distribution of a poly(arylene ether) solid, let alone determining a particle size distribution prior to separating the poly(arylene ether) solid from a poly(arylene ether) dispersion. Nor do any of the cited references teach adjusting a precipitation parameter in response to the particle size distribution. Thus each reference fails to teach at least three elements of Claim 1. Accordingly, Claim 1 is not anticipated by any of the cited references. Since each of Claims 2-43 includes or further limits the limitations of Claim 1, Claims 2-43 are likewise not anticipated by any of the cited references. Applicants therefore request the reconsideration and withdrawal of the rejection of Claims 1-43 under 35 U.S.C. §102(b) over Lau '157, Lau '045, Lau '421, or Burgoine.

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It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862 maintained by Assignee.

Respectfully submitted,

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